

PROTECT

UNINTERRUPTIBLE POWER SUPPLY AND SURGE PROTECTION

AEG
POWER SOLUTIONS

AEG POWER SOLUTIONS

THE RIGHT UPS FOR EVERY APPLICATION

04–05
Product overview

06
Surge protection

07–09
Surge protection
for home/small office

10–11
UPS technology

12–31
Compact UPS for home/
small office/SMB/IT

32–37
Extensions and accessories

38
Service packages

39
Configurator

AEG Power Solutions provides tailored solutions to customers' needs for protection against network faults and the problems caused by data loss and downtime costs. We assist our clients in all aspects of securing and controlling their electricity supply.

"Plug & Safe" – possibilities

Our product range extends from surge protection for home and office to UPS systems for industry.

We deliver UPS devices for home use, compact rack mounted UPS systems and equipment for small and medium IT concerns and "Plug & Safe" – parallel switching enabled modular UPS systems for data centers and for industry.

Product Support

AEG Power Solutions is a customer oriented, experienced company that is always there for you. The simple expansion of products, reliable delivery and business oriented service and support packages allows you to realize your individual protection requirements.

Founding of "Allgemeine Elektrizitäts Gesellschaft (AEG)" **1883**

Establishment of the AEG plant in Warstein-Belecke **1945**

Construction of SAFT Power Systems **1947**

DC supply for the German Post Office **1951**

The first performance Thyristors are built in series **1952**

First single-phase power controller for resistive loads **1961**

Worlds first single-phase Thyristor inverter **1961**

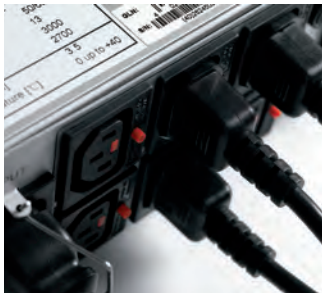
Worlds first three-phase Thyristor inverter **1965**

For the first time in Europe, bi-directional Thyristors (Triacs) are built **1968**

Development of power controllers **1969**

5/25: First switching power supply **1972**









Experience and continuity

For over 60 years, AEG Power Solutions has been a leading provider of reliable and efficient power systems for mission critical applications for customers involved in electricity supply, telecommunications, lighting, transportation, manufacturing, renewable energy and industry.

With over 250 engineers, technicians and project managers, AEG Power Solutions are carrying out pioneering work in research and development and in application engineering. As a result of this ingenuity, AEG Power Solutions currently has more than 70 active patents in the field of electricity supply.

Field service locations worldwide

With 20 branches and over 50 qualified partners, AEG Power Solutions deliver competent service and on-site support to our customers worldwide in 100 countries.

Our technical teams are able to perform complete turnkey projects for our customers.

On request, we can work on projects for electricity supply, from project management planning through to final installation, whether it is a new plant, an expansion or a retro fit out.

Talk to us!

Thyrosoft: First soft starter motor
1984

Profitec S: First rectifier with microprocessor
1985

First UPS with IGBT transistor (single and three phase)
1988

Protect 3.: Worldwide, the first UPS with 100 % digital control
1995

Thyro-P: Digital power controller
1999

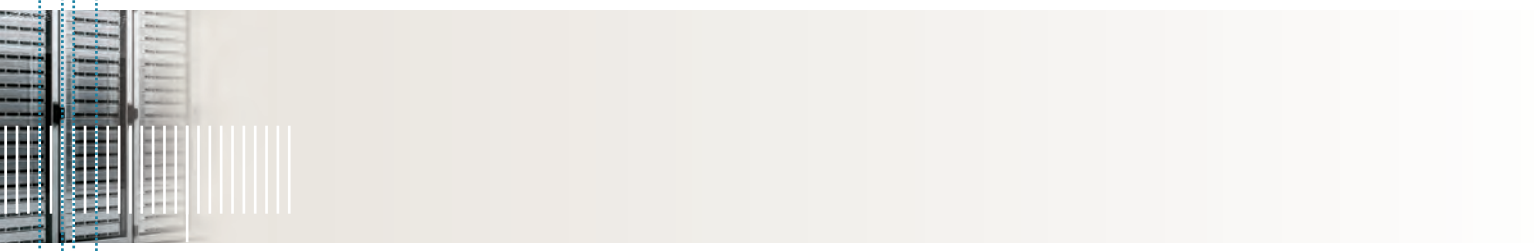
Protect RCS: Rectifier, battery charge and DC power supply for all industrial applications
2007

ecopx: Hybrid emergency power supply with solar and wind energy
2009

Protect PV.250: Solar central inverters with operating efficiency of 98.7 %
2010

Thyrobox PI: Power supply system with 10–20 % higher output for polysilicon production
2010

Protect Blue: 3 level IGBT (rectifier and inverter) UPS developed specifically for Large Data Centers
2012



PRODUCT OVERVIEW

SURGE PROTECTION FOR HOME AND SMALL OFFICE

10 Year Warranty





	page 7	7
	PROTECT BASIC	**PROTECT TRAVEL**
	Power strip for all standard applications	Security on the move for safe charging of your devices
Protected sockets	6 (GE6) / 7 (GE7)	1
Euro-sockets		2
Power switch	■	
USB charger		2
Network protection		
Sockets with child protection	■	■
Special features	Cable holder (Basic.GE7)	Flexible rotatable power supply

COMPACT UPS FOR HOME / SMALL OFFICE / SMB / IT





	page 12	14
	PROTECT HOME	**PROTECT ALPHA**
	Complete protection for multimedia applications	Suitable protection for SoHo applications, telephone equipment, NAS systems, PCs
Output power	0.6 kVA	0.45–1.2 kVA
Technology according to IEC 62040-3	VFD (offline)	VI (line interactive)
Input/output	1 ph~ / 1 ph~	1 ph~ / 1 ph~
Parallel operation		
Display	LED	LED
Battery system	Internal	Internal
Typical autonomy time (min.)	10	5–20





	page 20	22
	PROTECT C	**PROTECT C**
	Tower UPS for sensitive networks, intranet and internet servers	Tower UPS for sensitive networks, small computer centers
Output power	1–3 kVA	6–10 kVA
Technology according to IEC 62040-3	VFI (double conversion)	VFI (double conversion)
Input/output	1 ph~ / 1 ph~	1 ph~ / 1 ph~
Parallel operation	No	Yes
Display	LED & LCD (multilingual)	LED
Battery system	Internal / External	Internal / External
Typical autonomy time (min.)	5–90	5–90

	8	8	9	9
				
	PROTECT ENTERTAINMENT	**PROTECT TWINPOWER**	**PROTECT BUSINESS**	**PROTECT OFFICE**
	Intelligent protection for entertainment equipment with master-slave function	Security for flexible connectivity and safe power supply	Business solutions with surge protection and USB charger	Compact protection for PC and peripheral equipment
	6	4+1	6	3
		2		
		■	■	■
		2	2	2
	■		■	■
	■	■	■	■
	Antenna line protection	Two part construction	Foldable construction	Audio connection

	16	18
		
	PROTECT A	**PROTECT B. PRO**
	Protection for PCs, workstations and telephone equipment	Efficient rack/tower UPS for small server and network components with sinusoidal output
	0.5–1.4 kVA	0.75–3 kVA
	VI (line interactive)	VI (line interactive)
	1 ph~ / 1 ph~	1 ph~ / 1 ph~
	LED / LCD	LED & LCD
	Internal	Internal / External
	10–30	10–60

	24	26	28	30
				
	PROTECT D	**PROTECT D**	**PROTECT 1**	**PROTECT 1. M**
	Compact UPS for rack mounted protection of server, network and IT equipment	Compact UPS for rack mounted protection of server, network and IT equipment	For small data centers, protection of cash till systems and building facilities	Scalable and modular high-performance UPS system for the IT sector
	1–3 kVA	6–10 kVA	10–20 kVA	4–24 kVA
	VFI (double conversion)	VFI (double conversion)	VFI (double conversion)	VFI (double conversion)
	1 ph~ / 1 ph~	1 ph~ / 1 ph~	3 ph~ / 1 ph~	1 ph~ or 3 ph~ / 1 ph~
	No	Yes	Yes	Yes (internal)
	LED & LCD (multilingual)	LED & LCD (multilingual)	LED	LED & LCD
	Internal / External	Internal / External	External	External
	6–90	5–45	6–80	15–90

For higher power ratings please contact your AEG Power Solutions representative

SURGE PROTECTION

WHEN THE VOLTAGE RISES

High voltage surge – high damage

Over 1.7 million lightning flashes were counted in Germany in 2011. The flash frequency was 0.5 to 10 impacts per km^2 per annum. Under unfavorable conditions, electrical surge damage can still occur up to 3 km from the lightning strike.

Surge protection

Household appliances are becoming more valuable, especially as the number of computers and entertainment electronics continues to rise steadily. Devices are of increasing sophistication and quality and are, therefore, more expensive. When a lightning strike occurs, there is an enormous increase in voltage in power supply lines. This over-voltage or surge, may damage any connected devices, destroying or irreparably damaging them.

Even simple switching of a fluorescent lamp fitted with a conventional ballast starter within a household can generate an unwanted power surge.



A single power surge can cause a loss of several thousand Euros. If only small parts are damaged, the entire system often requires replacing. Even if a repair is possible, it is usually difficult and expensive.

Surge protection solutions from AEG Power Solutions, safeguards your valuable equipment cost effectively and protects you from problems and financial loss.

Particularly sensitive electronic equipment

- Telephone equipment and routers
- Flat screen TV and LCD screens
- Computers and peripherals
- Satellite receivers
- Games consoles
- Home theater systems

All of our surge protectors are equipped with the latest metal oxide varistors. Connected loads are effectively protected up to 36000 A from impact and current spikes.

While traditional varistors always carried the risk of fire caused by over-voltage, the new generation is characterized by the highest thermal stability, providing an even higher level of protection. This is back up by the KEMA KEUR certificate and the GS seal.

AREAS OF APPLICATION

	Protect Basic	Protect Travel	Protect Entertainment	Protect TwinPower	Protect Business	Protect Office
Telephone equipment / Router	■	■	■		■	■
Flat screen TV & receiver				■	■	
Games console		■	■		■	■
Computers & peripherals		■	■	■	■	■
HiFi equipment & speakers	■		■	■		
Mobile phones & MP3 players		■		■	■	■
Small household equipment	■		■		■	

PROTECT BASIC
PROTECT TRAVEL



Protect Basic.GE6



Protect Basic.GE7



Protect Travel

Protect Basic

5 outputs provide room for additional standard safety plugs and remote sockets for the connection of larger plug power supplies. Additional filters serve to mitigate high frequency noise. Cable clutter is avoided with the built-in cable holder (GE7).

Operating status and active surge protection are displayed with two LEDs. Via the power switch, the load is disconnected from the network in order to avoid standby power usage.

Main characteristics

- 5 sockets plus 1 or 2 remote outputs e.g. for larger power supplies
- Long power cable (1.8 m) with angled plug
- Resettable circuit breaker
- All outputs fitted with child safety protection
- Fixing options for wall mounting
- LEDs indicate operating status and active surge protection
- Surge protection up to 36000 A
- Full 3-line protection
- 10 year warranty

Part numbers

- Protect Basic.GE6: 600 000 7194
- Protect Basic.GE7: 600 000 7196
- Protect Basic.FR7 600 000 7198
- Protect Basic.FR6 600 000 7197
- Protect Basic.UK5 600 000 7190

Protect Travel

Protect Travel provides surge protection in the smallest places. This makes it ideal for trips or for use in confined spaces.

Often the quality of power in your destination country is not sufficient for your secure power requirements. Play it safe and protect laptops, mobile phones and digital cameras on the road against power surges. With the two integrated USB chargers you will save on the need to carry additional chargers with you.

Main characteristics

- 3 surge protected load terminals
- 2 remote, protected USB charging sockets
- Pilot light indicates active surge protection
- Compact size, ideal for travel
- 90° swivel cable
- All outputs fitted with child safety protection
- Surge protection up to 36000 A
- 10 year warranty

Part number

- Protect Travel: 600 000 7747



Protect Basic.GE7
Integrated cable organizer



Protect Travel
Compact dimensions
ideal for travel bag

PROTECT ENTERTAINMENT PROTECT TWINPOWER

10 Year Warranty



Protect Entertainment



Protect TwinPower

Protect Entertainment Protection for home entertainment

Protect your valuable investment and save money on standby costs! With its master-slave function, the Protect Entertainment is especially suitable for modern home theater and multi media equipment.

Once you turn off the main unit (master), Protect Entertainment interrupts the power supply to the peripheral devices (slaves) automatically so that no electricity is wasted on standby. Two constant current carrying sockets provide power to devices whose power supply should not be broken e.g. hard disk drives or satellite receivers.

In addition, Protect Entertainment also provides surge protection for antenna and network cables so that all of your entertainment equipment is protected against over voltage.

Main characteristics

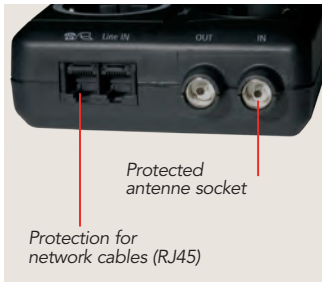
- 1 master and 3 slave sockets, adjustable trigger threshold of master, master-slave function disabled
- 2 permanent electrical outputs
- Over voltage protection for coaxial antenna cables
- Surge protection for network cables (RJ45)
- All outputs fitted with child safety protection
- Surge protection up to 36000 A
- Full 3-line protection
- 10 year warranty

Part number

- Protect Entertainment: 600 000 7745



Protect Entertainment Master-Slave-function switchable so that all outputs deliver power



Protect Entertainment

Protect TwinPower Security for flexibility in your application

The Protect TwinPower from AEG Power Solutions offers a flexible solution for desktop surge protection. With 7 power outputs, Protect TwinPower offers enough ports for all peripherals connected to a computer. With its two-piece design, the leads are placed in the most flexible position, the first part with 4 sockets e.g. to supply power for computers, printers and monitors and a desk unit with 3 sockets. You can disconnect the remote part of the TwinPower from the grid to avoid standby charges for your connected devices when they are not being used.

With the two protected USB charging sockets you can, for example, charge most mobile phones and MP3 players

Main characteristics

- Two part surge protector strip
- Power switch to turn off the remote gang
- A total of 4 + 3 protected outputs
- 2 protected USB charging sockets
- Easily accessible power switch
- All outputs fitted with child safety protection
- Surge protection up to 36000 A
- Full 3-line protection
- 10 year warranty

Part number

- Protect TwinPower: 600 000 7749



Protect TwinPower

PROTECT BUSINESS
PROTECT OFFICE

10 Year Warranty



Protect Business



Protect Office

Protect Business
Space saving business solution

Protect laptops and projectors at conferences.

With its folding mechanism, Protect Business is suitable for use at conferences and on desktops.

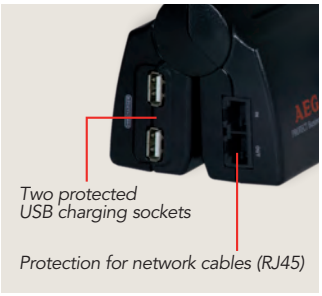
Additionally, it offers surge protection via the two integrated USB charging sockets and the data cable (RJ45) socket.

Main characteristics

- 6 protected sockets
- 2 protected USB charging sockets
- Surge protection for network cables (RJ45)
- Foldable design for conference tables
- All outputs fitted with child safety protection
- Surge protection up to 36000 A
- Full triple protection
- 10 year warranty

Part number

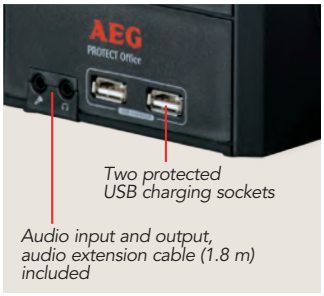
- Protect Business: 600 000 7748



Protect Business



Protect Business
Foldable for space saving



Protect Office



Protect Office

Protect Office
Compact protection for your PC

Protect Office is the compact power distributor for the desktop. The three power outputs and network connections ensure all round protection for your computer.

During development, compact dimensions were always at the forefront. Additionally, you can connect microphones and speakers directly to the Protect Office avoiding the clutter of cables behind and on your desk. With the central power switch, you can turn off peripheral devices and avoid standby power charges.

Main characteristics

- 3 protected outputs, one that is rotatable by 90°
- 2 protected USB charging sockets
- Surge protection for network cables (RJ45)
- Additional connection of microphone and speakers, audio extension cable included.
- Surge protection up to 36000 A
- Full triple protection
- 10 year warranty

Part number

- Protect Office: 600 000 7746

UPS TECHNOLOGY

PRECISE PROTECTION FOR EVERY APPLICATION

Mains voltage variations occur more often than expected. The consequences of this are crashes, loss of data and cost intensive downtime. The solution is an uninterruptible power supply (UPS) which offers a variety of levels of protection.

Uninterruptible power supply

There are three different UPS topologies offering different protection levels against all types of mains disruption and variation.

VFD technology

"Voltage and Frequency Dependent" in compliance with IEC 62040-3, also referred to as offline, protects against many problems in your network. Under normal conditions it conducts the input current to its outlet. When the power supply fails it switches over to a built in battery to compensate for any variations in the mains supply.

Benefits

- Smallest size
- Highest efficiency
- Lowest operating costs

VI technology

"Voltage Independent" in compliance with IEC 62040-3, also known as line interactive, protects against the most common power problems experienced in a network. Here the UPS also monitors the voltage level and balances under and over voltages. The VI technology offers a good compromise between reasonable security and moderate operating costs.

Benefits

- Extremely wide input voltage window
- Rugged design
- High efficiency
- Low operating costs

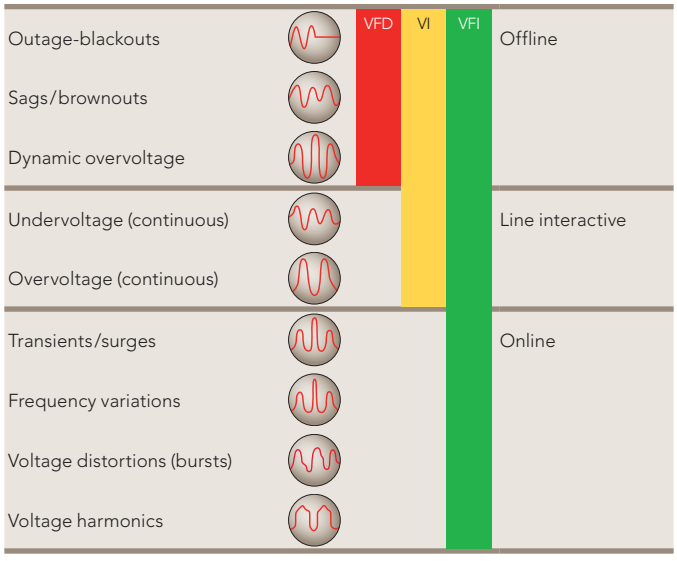
VFI technology

"Voltage and Frequency Independent" in compliance with IEC 62040-3, as well as online or double conversion offers superior protection against problems in the power supply. Here, the input voltage is fed to a rectifier, with output being supplied by an inverter. Under normal operating conditions, the inverter receives its supply directly from the rectifier, when the power supply fails it is supplied directly from the batteries. Consumers have no direct connection to mains AC power supply; the UPS protects them from all power grid problems.

In critical situations and with sensitive equipment, protection by VFI technology is highly reccomended.

Benefits

- Sinusoidal input current and output voltage
- No switching times, therefore no gaps in coverage
- Frequency converter operation possible
- Additional internal redundancy switch over
- Optimum protection against power disturbances



Optimum protection for every application



PROTECT HOME

VFD





Uninterruptible security for PCs and multimedia

Protect yourself with an uninterruptible power supply against data loss. With an output of 600 VA, Protect Home protects. It measures and protects against the consequences of power outages, voltage fluctuations and dangerous power spikes.

Appropriate protection

Protect Home is especially designed for domestic multimedia applications. It provides complete surge protection for telephone, fax and modem.

Consumers are connected directly to protected sockets directly through the UPS.

Protect Home has all of the features that current technology can provide to protect your valuable equipment from short circuit and power overload.

Easy to use

The clear "one board" design and LED indicators let you know about the most important operating conditions. This ease of use is complemented by an audible alarm.

Easy to control

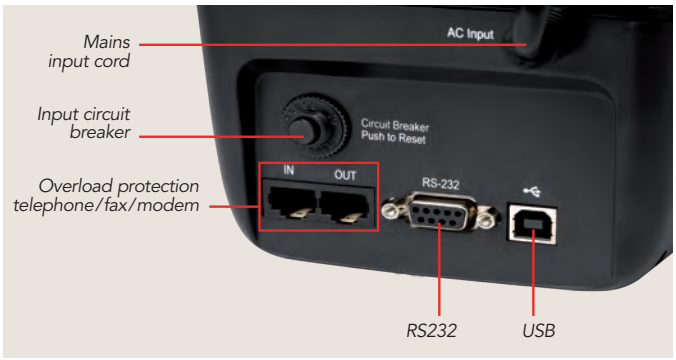
Protect Home can be connected quickly and easily with a PC or Mac via the USB or RS232 interfaces.

Through the included AEG shutdown software "CompuWatch", the unit allows you to control the most important operations as well as providing automatic shutdown during longer power outages.

Main characteristics

- Rugged UPS technology for power outages, voltage fluctuations and spikes
- USB and RS232 interface for control and management for PC and Mac
- Fully fledged "CompuWatch" "plug&play" software
- Data line protection (telephone, fax and modem)
- User friendly battery design (access to the battery compartment on the underside of the equipment)
- Individual operation, wall mountable
- 1 output for connecting consumers with high power requirements such as laser printers

Best features:
Comprehensive protection for telephone, fax or modem, USB and serial port for communication with your PC or Mac.



Classification VFD SY 322 acc. to IEC 62040-3	Protect Home
Power type rating	600 VA
	300 W
Part number	600 001 1844 (UK) 600 001 2013 (FR)
UPS INPUT	
Input voltage	230 VAC
Voltage range without battery supply	+6 % / -10 %
Frequency	50 Hz / 60 Hz ±5 Hz
Current consumption	3 A
UPS OUTPUT	
Rated output voltage	230 VAC
Rated output voltage in battery mode	±10 %
Frequency in battery mode	50 Hz / 60 Hz ±1 Hz
Output current	2.6 A
Transfer time at mains outage	2 – 6 ms (typical)
Voltage waveform	Modified sine wave
Overload/short circuit protection	Yes
BATTERY	
Type	Sealed, maintenance free (proprietary brand)
Rated voltage (linked)	12 VDC
Autonomy time for 1 PC with 17" TFT	~ 10 min.
Overload/deep discharge protection	Yes
Recharge time (to 90 % of rated capacity)	8 h
COMMUNICATION	
Interfaces	USB and RS232 for status and measurement levels
Shutdown software (on CD)	Included for all mainstream operating systems (e.g. Windows, Linux, Mac)
Failure indicators (acoustic/visual)	Mains failure, overload, battery low, fault
GENERAL DATA	
Audible noise (1 m distance)	<40 dB(A) (fanless)
Operating temperature range	0° – 40°C
Humidity	20 – 90 %
Operation altitude	Up to 1000 m at nominal load
EMC conformity	EN 62040-2 Class C2, EN 61000-3-2, EN 61000-3-3
Product safety	EN 62040-1
Data line protection	RJ11 (telephone, fax, modem)
Outputs	4 shock proof sockets (4 x surge protection, 3 x UPS protection)
Equipment color	Blackline, high gloss finish
Dimensions approx. W x H x D (mm)	137 x 96 x 310
Weight approx.	3.5 kg
Shipment	Mains input cord, management software “CompuWatch” (CD), USB and RS232 communication cable, operating instructions
Conformity	CE

PROTECT ALPHA

VI



Uninterruptible security for applications in the SoHo sector

Protect yourself using an uninterruptible power supply for optimal protection against loss of data wherever you need it. Available in the 450 VA to 1200 VA power range the series stands for solid, yet affordable, protection for numerous applications in the small and home office environment.

Protect alpha uses robust line interactive technology and therefore guarantees a stable power supply to the connected loads over a wide power input voltage range and without strain on the internal battery system.

Flexibility in our lineup

The fanless design combined with compact dimensions and a low weight are capable of accommodating even the most difficult conditions.

Easy to use

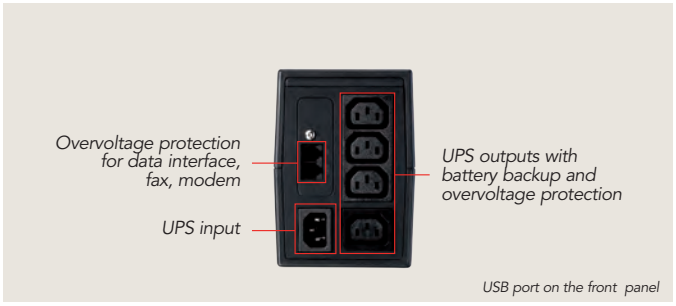
All models are characteristically easy to use and are equipped with an audible alarm and automatic grid frequency detection (50/60 Hz). An LED display on the front panel provides information about the current operating status.

Immediate operational readiness with the supplied cable set contributes to the ease of use.

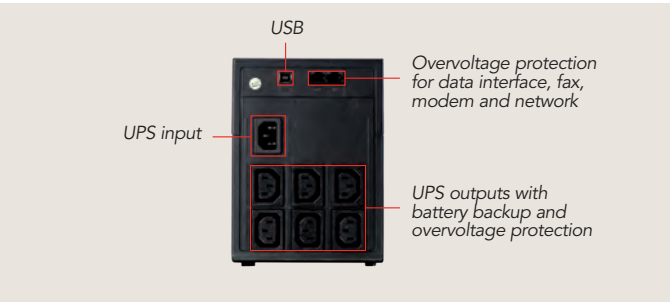
All functions are microprocessor controlled and monitored; measurement values and messages are always available because Protect A communicates via a USB interface to your PC. Through the included AEG shutdown software "CompuWatch", the unit allows you to control the most important operations as well as providing automatic shutdown during longer power outages.

Main characteristics

- Modern VI (line interactive) technology for power outages and dangerous over voltage
- Automatic voltage regulation against voltage fluctuations (AVR)
- Silent operation due to fanless design
- Easy installation with the supplied cables and easy handling
- Sealed, maintenance-free branded lead acid batteries with discharge protection
- USB interface for PC connection
- Data line protection for telephone, fax and modem (RJ11)
- Compact dimensions, low weight



Protect alpha 450/600/800 – rear view



Protect alpha 1200 – rear view

Classification VI SY 322 acc. to IEC 62040-3	alpha 450	alpha 600	alpha 800	alpha 1200
Type rating	450 VA	600 VA	800 VA	1200 VA
	240 W	360 W	480 W	600 W
Part number	600 001 4746	600 001 4747	600 001 4748	600 001 4749
UPS INPUT				
Nominal connection voltage	220 VAC / 230 VAC / 240 VAC			
Voltage range without battery operation	170 – 280 VAC			
Frequency (automatic selection)	50 Hz / 60 Hz ±5 Hz			
UPS OUTPUT				
Rated output voltage/AVR technology	220 VAC / 230 VAC / 240 VAC			
Rated output voltage in battery operation	±10 %			
Frequency in battery operation	50 Hz / 60 Hz ±1 Hz			
Nominal output current (at 230 VAC)	2 A	2.6 A	3.5 A	5.2 A
Changeover time in the event of mains failure	4 – 8 ms (typical)			
Voltage curve	Modified sine wave			
Overload protection	Yes			
BATTERY				
Type	Sealed, maintenance free (proprietary brand)			
Autonomy time at 120 W	~5 min.	~10 min.	~15 min.	~20 min.
Exhaustive discharge protection/ protection against excess load	Yes			
Charging time (to 90 % of rated capacity)	6 h			
COMMUNICATION				
Interfaces	USB (with status messages and measured values)			
Indicator	AC mode, battery mode			mains / battery use failure warning
Audible alarms	Backup mode, low battery, overload, fault			
Status display	LED display			
GENERAL DATA				
Inherent noise (1 m distance)	<40 dB(A)			
	Fanless			
Operating temperature range	0° – 40°C			
Humidity	0 – 90 % (without condensation)			
Operation altitude	Up to 1000 m at nominal load			
EMC conformity	EN 62040-2 class C2, EN 61000-3-2, EN 61000-3-3			
Product safety	EN 62040-1			
Overvoltage protection for data lines	RJ11 (phone, fax, modem)			
Mains input	IEC 320 C14			
Load outputs	4 x IEC 320 C13			6 x IEC 320 C13
Housing color	Blackline			
Dimensions approx. W x H x D (mm)	100 x 143 x 278		139 x 195 x 365	
Weight approx.	3.7 kg	4.4 kg	5.2 kg	8.6 kg
Scope of delivery	Mains connection, management software “CompuWatch” (CD), 1 device connecting cable, 1 USB cable, operating instructions			
Conformity	CE			

PROTECT A

VI





Uninterruptible security for PCs, workstations and telephone systems

The Protect A series protects your data efficiently and cost effectively against the consequences of power outages, voltage fluctuations and power surges.

Thanks to the increased range of services it is suitable for consumers with increased input current requirements. The attractive modern design is characterized by the high technical standards that are in place.

Protect A proves itself in critical situations with its high availability thanks to modern line-interactive (VI) technology, robust network overload and surge protection, as well as a very wide power input voltage range.

Easy to use

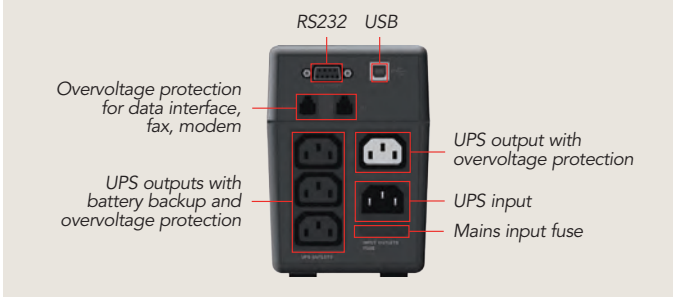
The reliable "one-board design" and the clear LCD display (A. 1000 / A. 1400) on the front clearly informs you about the most important operating conditions. All models benefit from ease of use, an audible alarm and automatic frequency detection (50/60 Hz). Immediate use with the supplied cable set contributes to the ease of use.

Simple to control

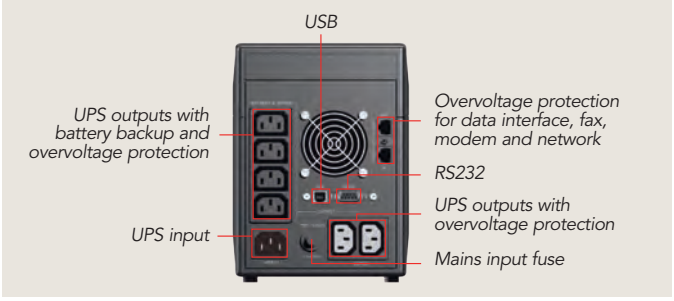
All functions are microprocessor controlled and are constantly monitored as measured values and messages are available at all times because Protect A communicates via RS232 or USB interface to the PC or Mac. The included special AEG "CompuWatch" shutdown software enables the most important operating systems to automatically shut down during longer power failure.

Main characteristics

- Modern VI (line-interactive) technology for power outages and dangerous over voltage
- Automatic voltage against voltage fluctuations (AVR)
- Double mains filter against voltage spikes
- Easy installation with the supplied cables and easy handling
- Sealed, maintenance-free branded lead acid batteries with discharge protection
- USB and RS232 interface for monitoring and control of PC or Mac
- Data Line Protection
- Connectors (n) for the direct supply of consumers with high power requirements, e.g. laser printer

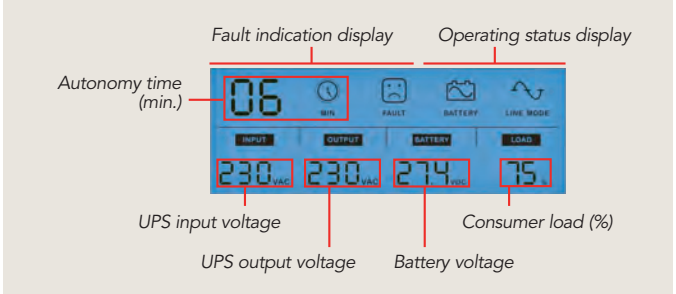


Protect A. 500 / A. 700 – rear view



Protect A. 1000 / A. 1400 – rear view

Classification VI SY 322 acc. to IEC 62040-3	A. 500	A. 700	A. 1000	A. 1400
Power type rating	500 VA	700 VA	1000 VA	1400 VA
	300 W	420 W	600 W	840 W
Part number	600 000 6435	600 000 6436	600 000 6437	600 000 6438
UPS INPUT				
Input voltage	220 VAC / 230 VAC / 240 VAC			
Voltage range without battery mode	170 – 280 VAC			
Frequency (automatic selection)	50 Hz / 60 Hz ±5 Hz			
UPS OUTPUT				
Rated output voltage/AVR technology	220 VAC / 230 VAC / 240 VAC			
Rated output in battery mode	230 VAC ±10 %			
Frequency in battery mode	50 Hz / 60 Hz ±1 Hz			
Nominal output current (at 230 VAC)	2.2 A	3 A	4.3 A	6.1 A
Transfer time at mains outage	2 – 6 ms (typical)			
Voltage waveform	Approximated sinusoidal			
Overload protection	Yes			
BATTERY				
Type	Sealed, maintenance free (proprietary brand)			
Autonomy time (intermediate circuit)	12 VDC		24 VDC	
Autonomy time for 1 PC with 17" TFT	~10 min.	~15 min.	~25 min.	~30 min.
Overload/deep discharge protection	Yes			
Charging time (to 90 % of rated capacity)	8 h			
COMMUNICATION				
Interfaces	USB and RS232 (with status messages and measured values)			
Shutdown software (on CD)	Included in delivery for all major operating systems (e.g. Windows, Linux, Mac)			
Alarm messages (acoustic/visual)	Mains failure, overload, battery discharged, replace battery, fault			
	LED Display		LCD display for input and output voltage [V] / efficiency [%] / autonomy time [min.]	
GENERAL DATA				
Audible noise (1 m distance)	<40 dB(A)		<45 dB(A) (AC-operation <40 dB(A))	
	Fanless		Speed controlled fan	
Operating temperature range	0° – 40°C			
Humidity	0 – 90 % (without condensation)			
Operation altitude	Up to 1000 m at nominal load			
EMC conformity	EN 62040-2 Class C2, EN 61000-3-2, EN 61000-3-3			
Product safety	EN 62040-1			
Data line protection	RJ11 (telephone, fax, modem)		RJ11 / RJ45 (add. network), Ethernet 10 and 100 Mbit/s	
Mains input	IEC 320 C14			
Outputs	3 + 1 x IEC 320 C13		4 + 2 x IEC 320 C13	
Equipment color	Blackline with silver colored front cover			
Dimensions approx. W x H x D (mm)	100 x 140 x 330		145 x 205 x 405	
Weight approx.	6 kg	6.5 kg	9.5 kg	10 kg
Shipment	Mains input cord, 2 device connecting cables, management software "CompuWatch" (CD) incl. 1 network license USB and RS232 communication cable, operating instructions			
Conformity	CE			



Protect A. 1000 / A. 1400 – display screen

PROTECT B. PRO

VI





Efficient and innovative UPS solutions for servers and networks

With its high power factor of 0.9lag, Protect B. PRO is one of the most efficient systems with VI protection technology.

Many ways of communication are possible, thanks to parallel operation of the RS232 or USB interfaces and the extension slot.

Also, the adaptation of the UPS to the requirements of modern IT environments is reflected by the design. The UPS can be configured directly with the control panel. Batteries can be easily replaced by means of the innovative flap mechanism at the front.

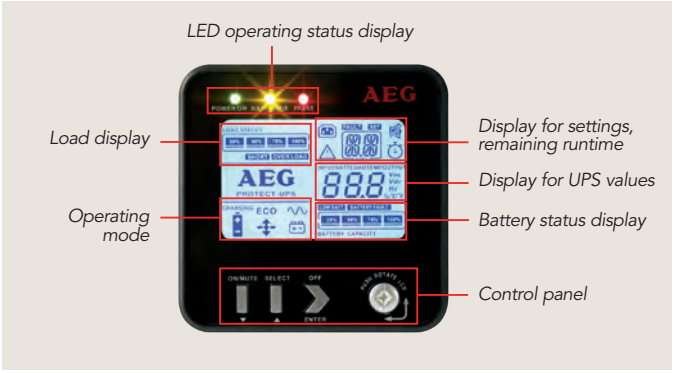
By means of the included accessories and the rotary screen, the UPS can be operated in the rack as well as in the tower mode.

Main characteristics

- Modern VI (line interactive) protection technology with sinus-shaped output voltage
- Low operating costs through high efficiency, power factor 0.9lag
- Compact shape, flexible use through combined design tower/rack, rotary screen
- Surge protection (RJ11/RJ45) for telephone, fax, modem and network
- Configuration directly on the LCD
- Full display of the essential parameters on the screen, e.g. the remaining runtime in minutes
- Intelligent monitoring system with USB and RS232 interface; parallel operation of USB/RS232 and extension slot is possible
- Additional battery packs available for B.1000 PRO, B.1800 PRO and B.3000 PRO models for ease of scaling of autonomy times



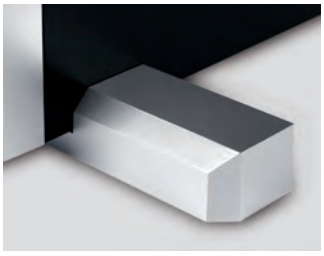
Easy battery replacement through front flap



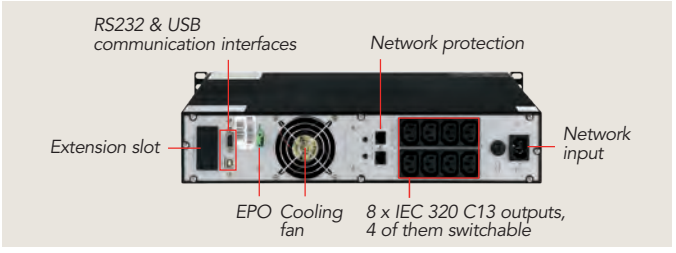
Protect B. PRO – LCD control panel



Rotary screen



Included pedestals



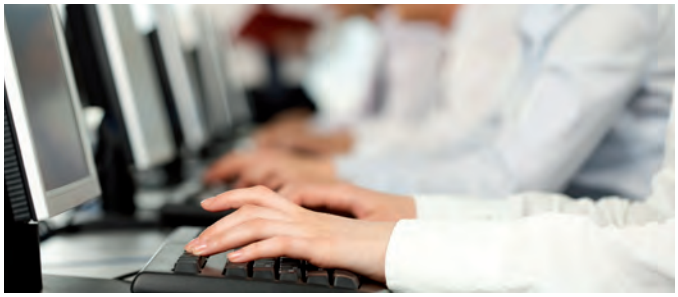
Protect B. 1000 PRO – rear view

Classification VI SS 211 acc. to IEC 62040-3	B. 750 PRO	B. 1000 PRO	B. 1400 PRO	B. 1800 PRO	B. 2300 PRO	B. 3000 PRO
Power type rating	750 VA	1000 VA	1400 VA	1800 VA	2300 VA	3000 VA
	675 W	900 W	1260 W	1620 W	2070 W	2700 W
Part number	600 000 8422	600 001 3872	600 000 8426	600 001 3873	600 000 8431	600 001 3875
Part number (battery pack)		600 001 3876		600 001 3874		600 001 3877
UPS INPUT						
Input voltage	220 VAC / 230 VAC / 240 VAC					
Voltage range without battery mode	±20 %					
Frequency (auto selection)	50 Hz / 60 Hz ±5 Hz					
Current consumption at nominal load (max.)	4 A	5.4 A	7.5 A	9.7 A	12.4 A	16.1 A
UPS OUTPUT						
Rated output voltage/AVR technology	208 VAC / 220 VAC / 230 VAC (default) / 240 VAC ±10 % (±3 % free running)					
Frequency in battery mode	50 Hz / 60 Hz ±1 Hz					
Output current (at 230 VAC)	3.2 A	4.3 A	6.1 A	7.8 A	10 A	13 A
Transfer time at mains outage	2 – 6 ms (typical), 8 ms max.					
Voltage waveform	sinusoidal					
Overload response (VI operation)	<120 % for 5 min. / 120 – 150 % for 10 s / >150 % for 1 s					
Overload response (battery operation)	<110 % for 1 min. / 110 – 150 % for 10 s / 150 – 200 % for 500 ms					
BATTERY						
Type	Sealed, maintenance free (proprietary brand), hot swappable					
Integrated	Yes					
Rated voltage	24 VDC		48 VDC		72 VDC	
Battery management	Temperature compensated with overload and deep discharge protection; automatic battery test; battery pack detection					
Autonomy time in min. (full/half-load, cos φ = 0.7lag)	5.5/15	5.5/15	7/19	7/20	6/20	6/15
Ditto UPS incl. battery expansion unit		19.5 / 48		23 / 63		21 / 48
Charging time (to 90 % rated capacity)	8 h					
COMMUNICATION						
User interface	LCD display with digital indication of relevant UPS values					
Interface (dual monitoring)	RS232 and USB (with status notification and UPS data), additional communication slot in parallel mode (SNMP / relay card); input contact for emergency power off					
Shutdown software (on CD)	5 network licenses for all common OS (e.g. Windows, Linux, Mac)					
Failure indicators (acoustic/visual)	3 LED indicators show UPS status, detailed indication via LCD display (mains failure, overload, battery discharge, battery replace, fan failure)					
GENERAL DATA						
Efficiency (in ECO mode)	>97 %					
Efficiency (at whole AVR range)	>90 %					
Audible noise (1 m distance)	≤45 dB(A)				≤55 dB(A)	
Ditto in ECO mode and max. 70 % load	≤40 dB(A)				≤45 dB(A)	
Operating temperature range	0° – 40°C					
Humidity	0 – 90 % (without condensation)					
Operation altitude	Up to 1000 m at nominal load					
EMC conformity	EN 62040-2 Class C2, EN 61000-3-2, EN 61000-3-3					
Product safety	EN 62040-1					
Data line protection	RJ11 (telephone, fax, modem) / RJ45 (Ethernet 10 Mbit/s / 100 Mbit/s)					
Mains input	IEC 320 C14				IEC 320 C20	
Number of outputs/ controllable via connectors	8/4 8 x IEC 320 C13				7/3 6 x IEC 320 C13, 1 x IEC 320 C19	
Equipment color	Black metal case / silver front					
Dimensions approx. W x H x D (mm)	482.6 (19") x 88 (2 U) x 420		482.6 (19") x 88 (2 U) x 520		482.6 (19") x 88 (2 U) x 640	
Weight approx. **UPS incl. battery system**	14.5 kg	15 kg	24 kg	25 kg	29 kg	29.5 kg
Battery expansion unit		16 kg		26.5 kg		39 kg
Shipment	Mains input cord, 2 x device connection cables (10 A), additional cable (16 A) for Protect B. 2300 PRO and Protect B. 3000 PRO, 2 x mounting brackets, 2 x base feet, 1 x management software "CompuWatch" (CD), 5 network licenses, RS232 and USB cable, operating instructions					
Conformity	CE					

PROTECT C

VFI



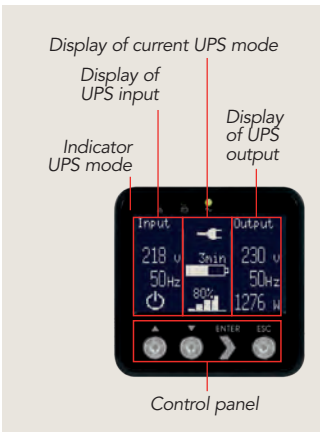


Uninterruptible security for applications in the SMB sector

Real VFI / double conversion online technology suitable for safe supply application-critical consumers in the IT environment such as workstations, servers, storage systems, as well as in the area of sensitive switching and control systems.

The new Protect C models in the performance levels in 1000, 2000 and 3000 VA range represent consistent further development of the well-proven and highly reliable series.

With the lag increased to 0.8, the power factor was taken into account for the demand for higher performance active consumers. The ECO and frequency inverter for operation mode highlights the requirements for a modern versatile UPS.



Protect C – LCD & control panel

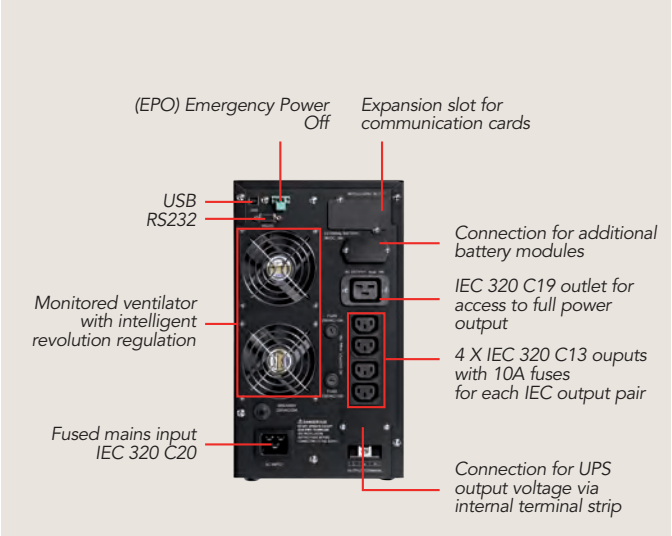
Optimal control and information

"Dual-monitoring" enabled interfaces extend communication opportunities. The universally usable communication slot also allows for the integration of SNMP network interface cards that allow for monitoring and management options, particularly multi-server shutdown. The AEG "CompuWatch" shutdown software is always included.

The multilingual graphical LCD display provides all the important operating states and values that can be stored and retrieved in addition to real-time data storage in plain text.

Main characteristics

- VFI topology (online / double conversion) protection against all mains network problems
- Extremely wide input voltage window of 110 VAC to 300 VAC without stress on the internal battery system and with a stable output voltage
- ECO and frequency operating voltage possible
- Expansion slot for SNMP, potential free contacts, remote display
- Graphic LCD display with interactive multilingual user interface
- Configuration options (password protected) via the operator terminal
- Internal hardware data logger with plain text display and date / time stamp
- Emergency power off on terminal block (potential-free)



Protect C. 3000 – rear view

PROTECT C	Autonomy time (full / half load) (min.)		
(cos φ = 0.7lag)	1000 VA	2000 VA	3000 VA
Default autonomy time	6/21	10/30	5/16
1 additional battery module	38/97	55/130	30/85
2 additional battery module	76/170	106/237	60/149

Autonomy time – battery units resemble UPS

Classification VFI SS 111* acc. to IEC 62040-3	C. 1000	C. 2000	C. 3000
Power type rating	1000 VA	2000 VA	3000 VA
	800 W	1600 W	2400 W
Part number (UPS including integrated battery system)	600 001 6103	600 001 6104	600 001 6105
Part number (additional battery pack)	600 001 6106	600 001 6107	
UPS INPUT			
Input voltage	220 VAC / 230 VAC / 240 VAC		
Voltage range without battery mode (load dependent)	110 – 300 VAC		
Frequency (auto selection)	50 Hz / 60 Hz ±10 Hz		
Mains current (system reaction)	λ ≥0.99 (THDi <5%)		
Current consumption at nominal load (max.) (at 230 VAC incl. max. battery charging current)	4.6 A	8.5 A	12.5 A
UPS OUTPUT			
Rated output voltage (adjustable)	200 VAC / 208 VAC / 220 VAC / 230 VAC (default setting) / 240 VAC ±2 %		
Frequency in battery / frequency converter mode	50 Hz / 60 Hz ±0.2 Hz		
Nominal output current (at 230 VAC)	4.3 A	8.7 A	13 A
Transfer time at mains outage	0 ms (without interruption)		
Voltage waveform	Sinusoidal, distortion <3 %		
Overload response (double conversion & battery mode)	<110 % for 60 s / 110 % up to <125 % for 30s / 125 % up to 150 % for 10s Subsequent, transfer to bypass mode (if bypass available)		
Crest factor	3 : 1		
Short circuit response	Short circuit proof (3 x I_N for 100 ms)		
BATTERY			
Type	Sealed, maintenance-free (proprietary brand), integrated		
Rated voltage (linked)	36 VDC	96 VDC	
Battery management	Exhaustive discharge protection / Protection against excess load Automatic battery test (daily, weekly, monthly)		
Charging time (to 90 % rated capacity)	5 h		
COMMUNICATION			
Interfaces (dual monitoring)	RS232, USB, communication slot (can be used parallel with RS232 / USB), input contact for emergency power off		
Shutdown software (on CD)	5 network licenses for all common OS (e.g. Windows, Linux, Mac, Unix)		
User interface / failure indication (acoustic/visual)	3 LED's with traffic light display, detailed indication via LCD display (alarms: at mains failure, overload, battery charging, battery replacement, fan fault data logger – with clear text display incl. Date and time history)		
GENERAL DATA			
Efficiency (ECO mode)	>93 %	>94 %	
Efficiency at nominal load (double conversion mode)	>87%	>88 %	
Audible noise (1 m distance)	≤44 dB(A)	≤49 dB(A)	
	with intelligent fan speed control and fan monitoring		
Temperature range	0 – 45 %		
Humidity	0 – 95 % (no condensation)		
Operation altitude	Up to 1000 m at nominal load		
EMC conformity	EN 62040-2 Class C1, EN 61000-3-2, EN 61000-3-3		
Product safety	EN 62040-1		
Mains input	IEC 320 C14		IEC 320 C20
Number of outputs	4 x IEC 320 C13	6 x IEC 320 C13	4 x IEC 320 C13
			1 x IEC 320 C19 + terminal
Equipment color	Blackline with silver colored front cover		
Dimensions approx. W x H x D (mm) UPS	145 x 220 x 400	190 x 345 x 460	
Dimensions approx. W x H x D (mm) battery	Integrated (additional battery pack same dimensions as UPS)		
Weight approx. UPS	13 kg	31 kg	
Weight approx. battery	19 kg	52 kg	
Shipment	Mains input cord, 2 device cords, communication cable (USB), management software "CompuWatch" (CD), incl. 5 network licences, operating instructions		
Conformity	CE		

** excl. ECO / Bypass mode*

PROTECT C. 6000/10000

VFI





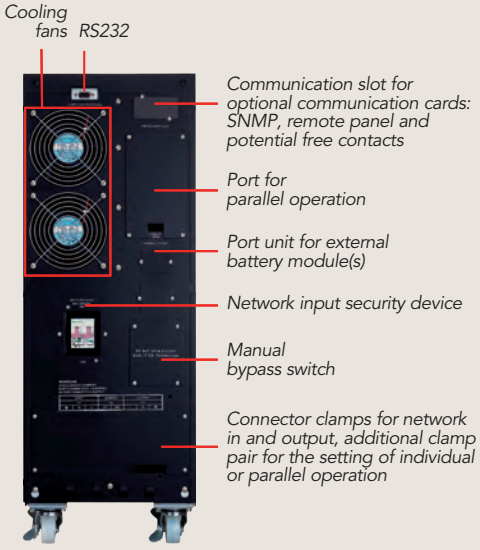
High-performance UPS system for IT applications

Thanks to genuine VFI technology (online/double conversion), Protect C is suitable for all critical business applications.

The proven VFI topology of Protect C protects against all network problems as a matter of principle. A sinus-shaped power feed is achieved under all load conditions at the input.

PROTECT C	Autonomy time (full/half-load) (min.)	
	6000 VA	10000 VA
Default autonomy time	8/26	5/16
1 additional battery module	26/67	16/42
2 additional battery modules	47/112	27/60
3 additional battery modules	67/157	42/97
4 additional battery modules	94/203	53/118

Autonomy time – battery units resemble UPS



Protect C. 10000 – rear view

Highly integrated switches and a robust IGBT module reduce the number of electrical connections and components and therefore provide for increased reliability. A Static Bypass Switch (SBS) and/or an automated bypass ensure additional safety in case of overload.

Maximum control

The bar displays for UPS load and battery capacity, as well as the clear pictogram of the system components provide information on the essential operating conditions.

Data is transmitted through an RS232 interface. With an optional SNMP (PRO) adapter, remote monitoring via a web browser and multi-server shutdown are possible.

The special AEG shutdown software "CompuWatch" is of course included.

Switchable in parallel

Protect C. 6000 and C. 10000 offer the possibility of parallel operation. Both active redundancy and higher availability are achieved with higher power requirements being taken into account.

Also, the combination of power increase and active redundancy is possible, as up to 3 devices can be switched in parallel.

Protect C meets the highest security and availability requirements and allows for an economical implementation.

Main characteristics

- VFI topology (online/double conversion) protects against all network problems
- Micro processor control/digital signal processors for maximum availability
- Sinus-shaped power feed (high-frequency pulse width modulation with IGBTs)
- n+x technology for redundancy and performance increase
- Extension slot for SNMP, potential-free contacts, remote panel
- Also available as an S-version with reinforced charging rectifier
- Space saving design with integrated battery system
- Integrated fault operation security for manual bypass switch

Classification VFI SS 111 acc. to IEC 62040-3	C. 6000	C. 10000
Power type rating	6000 VA	10000 VA
	4200 W	7000 W
	Parallel connection	Parallel connection
Part number (UPS including integrated battery system)	600 000 5877	600 000 5878
Part number (battery pack)	600 000 5879	600 000 5880
Part number (UPS S–version)	600 000 4340	600 000 4341
UPS INPUT		
Input voltage	220 VAC / 230 VAC / 240 VAC	
Voltage range without battery mode	176 – 276 VAC	
Frequency (auto selection)	50 Hz / 60 Hz ±4 Hz	
Mains current (system reaction)	λ ≥0.98	
Current consumption at nominal load (max.)	31 A	50 A
UPS OUTPUT		
Rated output voltage (adjustable)	220 VAC / 230 VAC (default) / 240 VAC ±1 %	
Frequency in battery mode	50 Hz / 60 Hz ±0.1 %	
Output current (at 230 VAC)	26 A	43.4 A
Transfer time at mains outage	0 ms (without interruption)	
Voltage waveform	Sinusoidal, distortion THD <4 %	
Overload response (online operation)	<130 % for 10 min. / 130 % for 1 s Subsequent, transfer to bypass mode	
Crest factor	3 : 1	
Short circuit response	Short circuit proof (3 x I_N for 140 ms)	
BATTERY		
Type	Sealed, maintenance free, integrated (proprietary brand)	
Rated voltage (linked)	240 VDC	
Overload/deep discharge protection	Yes	
Charging time (to 90 % rated capacity)	7 h	
COMMUNICATION		
Interfaces	RS232 (with status display and data), communications slot for SNMP, potential free relay contact	
Shutdown software (on CD)	5 network licenses for all common OS (e.g. Windows, Linux, Mac)	
Failure indicators (acoustic/visual)	LED display for UPS summary /battery capacity display, status display Indicators for mains failure, overload, battery charging, battery replacement, failure	
GENERAL DATA		
Efficiency AC – AC (at nominal load)	≥90 %	
Audible noise (1 m distance)	<55 dB(A)	
Operating temperature range	0° – 40°C	
Humidity	0 – 90 % (without condensation)	
Operation altitude	Up to 1000 m at nominal load	
EMC conformity	EN 62040-2 Class C3	
Product safety	EN 62040-1	
Mains input	Secured terminal block	
Consumer outputs	Secured terminal block	
Equipment color	Blackline with silver colored front cover	
Dimensions approx. W x H x D (mm) UPS	260 x 720 x 570	
Dimensions approx. W x H x D (mm) battery	Integrated (not S-version battery pack same dimensions as UPS)	
Weight approx. UPS	90 kg	93 kg
Weight approx. battery	65 kg	68 kg
Shipment	Parallel connection cable, management software “CompuWatch” (CD), communications cable, operating instructions	
Conformity	CE	

PROTECT D

VFI





Extension slot *Locking outputs* *Easy battery replacement*

Efficient high-performance UPS for rack use

With a high power factor of 0.9lag the Protect D series exceeds the power of conventional UPS systems by 20 %. Efficiency is significantly increased during normal operation as well as in the energy-efficient ECO and ECO+ operating modes.

Compact and flexible

The height of the UPS electronics and battery together is only 2 U. With the flap front cover, battery replacement is very easy.

The autonomy times can be increased with additional battery packs; connected battery packs are automatically detected.

All batteries can be replaced during operation (hot-swappable). Our advanced battery charging technology allows for short charging times and battery-preserving charging characteristics at the same time.

Many interfaces (RS232/USB/Slot/EPO) as well as a potential-free contact within the series ensure outstanding communication capacity.

Secure and easy to use

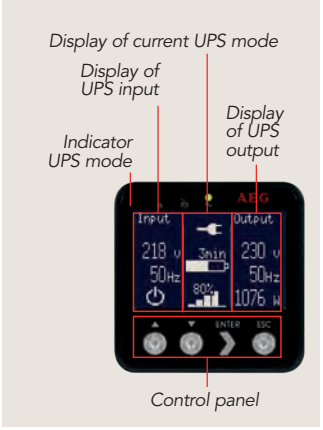
An innovative locking mechanism at the UPS outputs prevents accidental separation of the loads.

The multilingual graphic screen is very easy to read, even from a longer distance, thanks to its large format. Together with three LEDs at the top, it displays the essential operating conditions. The UPS can be directly administered with the control panel.

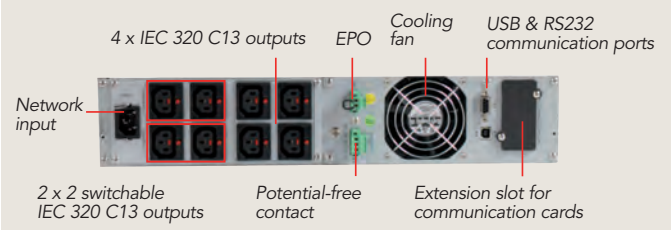
A real-time event logger ensures careful observation and analysis of events as they occur. In addition, a regular automated battery test can be planned.

Main characteristics

- VFI topology (online/double conversion) protects against all network problems
- An increase of the available performance by approx. 20 % through a 0.9lag power factor
- Increased efficiency through the ECO and ECO+ mode
- Advanced battery charging technology for maximum durability of the battery
- Hot-swappable batteries, easy replacement through hinged front
- Additional battery packs for easy scaling of the autonomy times
- Extension slot for communication cards, communication in parallel is possible through the RS232/USB interface and SNMP
- Low height (2 U) including integrated batteries
- Switchable UPS outputs with innovative locking mechanism
- Display of the UPS parameters on a graphic LCD, direct configuration is possible with the control panel
- Freely programmable potential-free contact plus emergency shutdown contact
- May also be used as a frequency converter



Protect D – LCD & control panel



Protect D. 2000 – rear view

PROTECT D	Autonomy time (full/half-load) (min.)			
(cos φ = 0.7lag)	1000 VA	1500 VA	2000 VA	3000 VA
Default autonomy time	9/24	8/18	10/21	6/14
1 additional battery module	35/71	31/65	37/77	24/51
2 additional battery modules	63/130	56/119	67/141	44/92
3 additional battery modules	94/194	83/178	99/210	64/137
4 additional battery modules	126/261	112/240	134/283	87/185

Autonomy time – battery units resemble UPS

Classification VFI SS 111* acc. to IEC 62040-3	D. 1000	D. 1500	D. 2000	D. 3000
Power type rating	1000 VA	1500 VA	2000 VA	3000 VA
	900 W	1350 W	1800 W	2700 W
Part number (UPS including integrated battery system)	600 000 8434	600 000 8436	600 000 8437	600 000 8438
Part number (additional battery pack)	600 000 8441	600 000 8442	600 000 8443	
UPS INPUT				
Input voltage	220 VAC / 230 VAC / 240 VAC			
Voltage range without battery mode (load dependent)	120 – 276 VAC		140 – 276 VAC	
Frequency (auto selection)	50 Hz / 60 Hz ± 5 Hz			
Mains current (system reaction)	λ ≥0.99 (THDi ≤8 %)			
Current consumption at nominal load (max.)	4.8 A	7.2 A	9.6 A	13.7 A
UPS OUTPUT				
Rated output voltage (adjustable)	200 VAC / 208 VAC / 220 VAC / 230 VAC (default) / 240 VAC ±2%			
Frequency in battery-/ frequency converter mode	50 Hz / 60 Hz ±0.25 Hz			
Output current (at 230 VAC)	4.3 A	6.5 A	8.7 A	13 A
Transfer time at mains outage	0 ms (without interruption)			
Voltage waveform	Sinusoidal, distortion THD <3 %			
Overload response (double conversion mode)	<130 % for 5 min. / 130 % – 150 % for 15 s			
Overload response (battery mode)	<130 % for 12 s / 130 % – 150 % for 2 s			
Crest factor	3 : 1			
Short circuit response	Short circuit proof (4 x I_N for 100 ms)			
BATTERY				
Type	Sealed, maintenance free (proprietary brand), integrated, hot swappable			
Rated voltage (linked)	36 VDC	48 VDC	72 VDC	
Battery management	Temperature compensated with discharge protection, automatic battery test (programmable) and battery pack detection			
Charging time (to 90 % rated capacity)	3 h			
COMMUNICATION				
Interfaces (dual monitoring)	RS232, USB, communication slot (can be used parallel with RS232 / USB), input contact for emergency shutdown, programmable potential free contact			
Shutdown software (on CD)	5 network licenses for all common OS (e.g. Windows, Linux, Mac, Unix, Sun etc.)			
Failure indicators (acoustic/visual)	3 LED's with traffic light display, detailed indication via LCD display (alarms: at mains failure, overload, battery charging, battery replacement, fan fault, data logger – with clear text display incl. date and time history)			
GENERAL DATA				
Efficiency (ECO+ mode)	>95 %		>98 %	
Efficiency at nominal load (double conversion mode)	≥88 %	>88 %	>89 %	≥90 %
Audible noise (1 m distance)	<44 dB(A)	< 45 dB(A)	<52 dB(A)	
Operating temperature range	0°– 40°C			
Humidity	0 – 95 % (without condensation)			
Operation altitude	Up to 3000 m at nominal load			
EMC conformity	EN 62040-2 Class C1, EN 61000-3-2, EN 61000-3-3			
Product safety	EN 62040-1			
Mains input	IEC 320 C14			IEC 320 C20
Number of outputs (switchable) automatically locked	6 x IEC 320 C13 (2+2)		8 x IEC 320 C13 (2+2)	6 x IEC 320 C13 (3+3) + 1 x IEC 320 C19
Housing	Blackline metal case with aluminum front			
Dimensions approx. W x H x D (mm) UPS	482.6 (19") x 88 (2 U) x 430		482.6 (19") x 88 (2 U) x 600	
Dimensions approx. W x H x D (mm) battery	482.6 (19") x 88 (2 U) x 430		482.6 (19") x 88 (2 U) x 600	
Weight approx. UPS incl. integrated battery	16 kg	19.5 kg	19 kg	29.5 kg
Weight approx. battery extension unit	23 kg	28 kg	41 kg	41 kg
Shipment	Mains input cord, UPS management software "CompuWatch" (CD), communications cables (RS232 & USB), operating instructions, rack rails, device cables: 3 x IEC 320 C13 (D. 1000 – D. 2000), 3 x IEC 320 C13 +1 x IEC 320 C19 (D. 3000)			
Conformity	CE			

**excl. ECO/Bypass mode usage*

PROTECT D. 6000/10000

VFI





Top performance in rack format

Protect D. 6000 and D. 10000 compliment the range of the successful Protect D series. With Protect D. 10000, a power level of 10 kVA in rack design is available for the first time.

Protect D. 6000 and Protect D. 10000 have the same advantages and characteristics as the smaller models, including the high power factor of 0.9lag.

Compact housing dimensions

Thanks to their compact design, the devices can also be used in IT cabinets with a depth of only 800 mm.

Protect D. 6000 including battery, connection unit and manual bypass unit fits within 3 standard height units. The 10 kVA version, with a complete battery system, connection unit and integrated manual maintenance bypass fits within 5 standard height units.

The sophisticated design with removable connection unit and battery systems with plug-in technology make the assembly in the rack and the electrical installation as easy as possible.

The weight is unimportant as the batteries can be mounted at the end of the installation.

Flexible and maintenance friendly

The equipment offers separate feed for the rectifiers and bypass, Protect D. 6000 and 10000 can also be operated with only one feed. Both options are provided to deliver highest flexibility and security.

To increase power or to be able to serve the demand for active redundancy, Protect D. 6000 and Protect D. 10000 are prepared for parallel operation.

In order to ease maintenance work, a manual bypass is already integrated into the removable connection unit.

Special characteristics

- Suitable for IT cabinets with a depth of 800 mm
- High power density in a compact housing
- Very easy assembly through removable connection unit and batteries with plug-in technology
- Dual or single input
- Prepared for parallel operation
- Integrated manual maintenance bypass (foolproof operation)



Protect D. 10000 – rear view: flexible, removable connection unit with manual bypass and integrated IEC output distribution with automated locking mechanism



Protect D. 6000 with open battery compartment

PROTECT D	Autonomy time (full/half-load) (min.)	
(cos φ = 0.7lag)	6000 VA	10000 VA
Default autonomy time	5/13	5.5/10.5
1 additional battery module	15/39	12/25
2 additional battery modules	26/67	20/41
3 additional battery modules	38/98	28/59
4 additional battery modules	51/132	36/78

Autonomy time – battery units resemble UPS

Classification VFI SS 111 acc. to IEC 62040-3	D. 6000	D. 10000
Power type rating (Ready for redundant or increased performance parallel operation)	6000 VA	10000 VA
	5400 W	9000 W
Part number (UPS incl. internal battery system)	600 000 8439	600 000 8440
Part number (additional battery pack)	600 001 1042	600 001 1044
UPS INPUT		
Input voltage	220 VAC / 230 VAC / 240 VAC	
Voltage range without battery mode	176 VAC (120 VAC to 50 % utilization) – 276 VAC	
Voltage range bypass input	184 – 264 VAC	
Frequency (auto selection)	50 Hz / 60 Hz ±10 %	
Mains current (system reaction)	λ ≥0.99 (THDi <5 %)	
Current consumption at nominal load (max.)	29 A	47 A
UPS OUTPUT		
Rated output voltage (adjustable)	200 VAC / 208 VAC / 220 VAC / 230 VAC (default) / 240 VAC ±1%	
Frequency in battery / frequency converter mode	50 Hz / 60 Hz ±0.5 %	
Output current (at 230 VAC)	26 A	43.4 A
Transfer time at mains outage	0 ms (without interruption)	
Voltage waveform	Sinusoidal, distortion THD <2 %	
Overload response (double conversion mode)	<130 % for 2 min. / 130 – 150 % for 30 s, then automatically switches over to electronic bypass: 0 ms	
Crest factor	3 : 1	
Short circuit response	Short circuit proof (3 x I_N for 100 ms)	
BATTERY		
Type	Sealed, maintenance free (proprietary brand), integrated, hot swappable	
Rated voltage (linked)	180 VDC	240 VDC
Battery management	Temperature compensated with discharge protection, automatic battery test (programmable) and battery pack detection	
Charging time (to 90 % rated capacity)	3 h	
COMMUNICATION		
Interfaces (dual monitoring)	RS232, USB, communication slot (can be used parallel with RS232 / USB), input contact for emergency shutdown, programmable potential free contact	
Shutdown software (on CD)	5 network licenses for all common OS (e.g. Windows, Linux, Mac, Unix, Sun etc.)	
Failure indicators (acoustic/visual)	3 LED's with traffic light display, detailed indication via LCD display (alarms: at mains failure, overload, battery charging, battery replacement, fan fault, data logger – with clear text display incl. date and time history)	
GENERAL DATA		
Efficiency (ECO mode)	>96 %	>97 %
Efficiency at nominal load (double conversion mode)	>92 %	>93 %
Audible noise (1 m distance)	<55 dB(A)	
Operating temperature range	0° – 40°C	
Humidity	0 – 95 % (without condensation)	
Operation altitude	Up to 1000 m at nominal load	
EMC conformity	EN 62010-2 Class C2	
Product safety	EN 62040-1	
AC input	Permanent connection via terminals, separate power option from rectifier and bypass connector unit with removable integrated manual bypass (for installation or subsequent maintenance of UPS) with optional cable entry from top or rear	
Number of outputs automatically locked	1 x fixed connection on terminal block plus 2 x IEC 320 C13, 1 x IEC 320 C19	1 x fixed connection on terminal block plus 4 x IEC 320 C19
Housing	Metal casing, blackline with aluminum cabinet front	
Dimensions approx. W x H x D (mm) without front panel	48.6 (19") x 132 (3 U) x 715 depth with front panel plus 35 mm	48.6 (19") x 220 (5 U) x 715 depth with front panel plus 35 mm
Dimensions approx. W x H x D (mm) battery extension unit incl. front panel	482.6 (19") x 132 (3 U) x 595	
Weight approx. without batteries	20 kg	32.5 kg
Weight approx. with batteries	46 kg	82.5 kg
Weight approx. battery extension unit	44.5 kg	63 kg
Shipment	Rack rails kit, 16 A IEC device cable, UPS management software "CompuWatch" (CD) incl. 5 network licenses, RS232 and USB cable, operating instructions	
Conformity	CE	

PROTECT 1

VFI





Online UPS systems for networks and data centers

Protect 1 offers you a high-power UPS system for all critical business applications. Among other fields of use, Protect 1 is suitable for networks, data centers, cash desk systems or building technology.

The VFI topology of Protect 1 protects reliably against all network problems.

Switchable in parallel

A compact parallel switch panel ensures the flexible and easy development of a parallel system.

Up to 3 devices can be switched in parallel. Hence, a power increase up to 60 kVA is possible in addition to the combination of power improvement and redundancy.

Control and monitoring

The clearly structured screen provides detailed information on all important operating conditions and events.

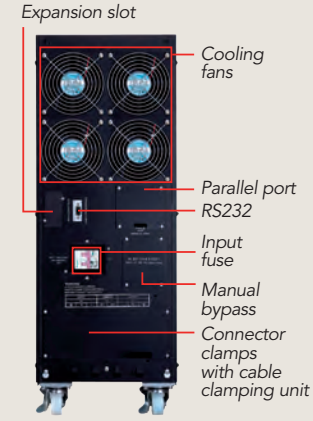
Data is transmitted through an RS232 interface.

With the extension slot, devices such as SNMP (PRO) adapter cards or potential-free contacts can be retrofitted. This supports remote monitoring via web browser and multi-server shutdown.

The special AEG shutdown software "CompuWatch" is included.

Main characteristics

- VFI topology (online/double conversion) protects against all network problems
- Static bypass switch (SBS) and foolproof maintenance bypass
- 10, 15 or 20 kVA with space-efficient, modern design
- n+x technology for active redundancy and/or performance increase
- Performance increase up to 60 kVA through parallel operation of up to 3 devices
- RS232 interface, extension slot e.g. for SNMP adapter card
- Battery systems with an expected lifespan of 10–12 years, according to EUROBAT, are available
- State-of-the-art technology for maximum reliability (DSP, CAN-Bus) and maximum efficiency (high-frequency IGBT)



Protect 1.200 – rear view



Protect 1 during parallel operation

PROTECT 1	Autonomy time (full/half-load) (min.)			
Coupled battery cabinets	Protect 1.100	Protect 1.150	Protect 1.200	
1 x Protect 1.100 BP	16/42	-	-	Port "plug & play" with battery connection wire protected against polarity reversal
2 x Protect 1.100 BP	42/97	-	-	
3 x Protect 1.100 BP	60/134	-	-	
1 x Protect 1. BP 20	19/47	10/29	6/19	Battery cabinets, pre-assembled and ready to be connected Protect 1. BP 20 Period of use of the integrated rechargeable batteries: 10 – 12 years according to EUROBAT
2 x Protect 1. BP 20	47/103	29/68	19/47	
3 x Protect 1. BP 20	78/177	47/103	34/62	
4 x Protect 1. BP 20	103/243	68/153	47/103	
5 x Protect 1. BP 20	138/312	85/202	63/138	

Autonomy times – battery cabinets resemble UPS

Classification VFI SS 111 acc. to IEC 62040-3	Protect 1.100	Protect 1.150	Protect 1.200
	n+x - technology scalable (parallel switching capacity up to 3 units)		
Power type rating	10 kVA	15 kVA	20 kVA
	7 kW	10.5 kW	14 kW
Part number (UPS without battery)	600 000 4434	600 000 4435	600 000 4436
Part number (battery pack 1.100 BP)	600 000 5097		
Part number (battery pack 1. BP 20)	100 000 1991	100 000 1991	100 000 1991
UPS INPUT			
Input voltage	400 / 230 VAC (3 ph~/N/PE)		
Voltage range without battery mode	304 – 478 VAC (Bypass: 176 – 261 VAC)		
Frequency (automatic selection)	50 Hz / 60 Hz ±4 Hz		
Mains current (system reaction)	λ ≥0.95		
Current consumption at nominal load (max.)	13 A / 46 A (bypass)	19 A / 68 A (bypass)	25 A / 91 A (bypass)
UPS OUTPUT			
Rated output voltage (adjustable)	220 VAC / 230 VAC (default) / 240 VAC ±1 %		
Frequency in battery mode	50 Hz / 60 Hz ±0.1 %		
Output current (at 230 VAC)	43.4 A	65.2 A	86.9 A
Transfer time at mains outage	0 ms (without interruption)		
Voltage waveform	Sinusoidal, distortion THD <2 %		
Overload response	<130 % for 10 min. / 130 % for 1 s, then automatic transfer to bypass mode: 0 ms (without interruption)		
Crest factor	3 : 1		
Short circuit response	Short circuit proof (2.5 x I_N for 100 ms)		
BATTERY			
Rated voltage (linked)	240 VDC		
Charging characteristics	IU – characteristic curve (charging voltage 274 VDC / charging current max. 4.2 A)		
Autonomy time	Expandable with external battery modules		
Overload/deep discharge protection	Yes		
COMMUNICATION			
Interfaces	RS232 (with status display and data values) Communication slot (for potential free contact, SNMP)		
Shutdown software (on CD)	5 network licenses for all common OS (e.g. Windows, Linux, Mac, Unix, Sun etc.)		
Failure indicators (acoustic/visual)	Mains failure, overload, battery charging, battery replacement, failure LED bar graph for summary / battery capacity		
GENERAL DATA			
Efficiency AC – AC (at nominal load)	>90 %		
Audible noise (1 m distance)	<55 dB(A)	<60 dB(A)	
Operating temperature range	0° – 40 °C		
Humidity	0 – 95 % (without condensation)		
Operation altitude	Up to 1000 m at nominal load		
EMC conformity	EN 62040-2 Class C3		
Product safety	EN 62040-1		
Equipment color	Blackline with silver colored front cover		
Dimensions approx. W x H x D (mm) UPS	260 x 720 x 670 plus interception unit (90)		
Dimensions approx. W x H x D (mm) battery extension unit	260 x 720 x 670 (Protect 1.100 BP)		
	260 x 720 x 810 (Protect 1. BP 20)	260 x 720 x 810 (Protect 1. BP 20)	260 x 720 x 810 (Protect 1. BP 20)
Weight approx. UPS	39 kg	55 kg	55 kg
Weight approx. battery extension unit	135 kg (Protect 1.100 BP)		
	170 kg (Protect 1. BP 20)	170 kg (Protect 1. BP 20)	170 kg (Protect 1. BP 20)
Shipment	Parallel connection cable, communication cable, UPS management software "CompuWatch" (CD), operating instructions		
Conformity	CE		

PROTECT 1.M

VFI





Front view with swappable module unit technology

Modular high-performance UPS for the IT sector

Protect 1.M is a UPS system with maximum reliability and power.

The VFI topology of Protect 1.M protects its systems reliably against all network problems.

Modular structure

The compact module structure of Protect 1.M allows you to flexibly upgrade the UPS power up to 24 kVA. The individual 4 kVA modules are hot-swappable, connected modules are automatically detected.

In this way, you can perform system extensions during runtime.

Each individual module is a separate UPS and works independently of a central control mechanism.

Intelligent control and monitoring

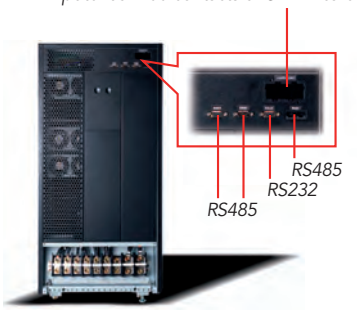
The powerful communication module of Protect 1.M collects the information of the self-sufficient UPS modules. The clearly designed screen informs you about all important operating conditions.

You can also retrieve and control all technical parameters with the included AEG software "CompuWatch".

Main characteristics

- High power reserves through a total performance of max. 24 kVA
- Wide security margins through n+x technology
- Static bypass switch (SBS) and foolproof maintenance bypass
- 3 or 1-phase connection of the entire installation with an automated detector, 1-phase output
- Long autonomy periods available in case of power failure
- Battery cabinets in the Protect 1.M range supplied with 10 to 12 year battery life according to EUROBAT
- Intelligent battery management
- Hot-swappable module for easy replacement during operation
- Module structure to be plugged into a compact tower, assembly in 19" rack possible
- Communication module with LCD, "Dual Monitoring" interface with expansion slot

Expansion slot for relay card with potential-free contacts or SNMP card



Dual monitoring interface

n+x TECHNOLOGY – LEVEL OF REDUNDANCY

Load	Number of UPS modules					
	1 module	2 modules	3 modules	4 modules	5 modules	6 modules
4 kVA	no redundancy	n+1 (4 kVA)	n+2 (8 kVA)	n+3 (12 kVA)	n+4 (16 kVA)	n+5 (20 kVA)
8 kVA		no redundancy	n+1 (4 kVA)	n+2 (8 kVA)	n+3 (12 kVA)	n+4 (16 kVA)
12 kVA			no redundancy	n+1 (4 kVA)	n+2 (8 kVA)	n+3 (12 kVA)
16 kVA				no redundancy	n+1 (4 kVA)	n+2 (8 kVA)
20 kVA					no redundancy	n+1 (4 kVA)
24 kVA						no redundancy

CLASSIFICATION OF THE BATTERY CABINETS AVAILABLE EX WAREHOUSE – IN THE PROTECT 1.M RANGE

	15 min.	20 min.	30 min.	40 min.	60 min.	75 min.	90 min.
4 kVA	-	-	-	1 x 1.M BP28	1 x 1.M BP42	-	1 x 1.M BP56
8 kVA	1 x 1.M BP28	-	1 x 1.M BP42	1 x 1.M BP56	1 x 1.M BP84	2 x 1.M BP65	1 x 1.M BP84
							1 x 1.M BP42
12 kVA	1 x 1.M BP42	1 x 1.M BP65	-	1 x 1.M BP84	2 x 1.M BP65	-	3 x 1.M BP65
16 kVA	1 x 1.M BP56	-	1 x 1.M BP84	1 x 1.M BP84	2 x 1.M BP84	3 x 1.M BP65	4 x 1.M BP65
				1 x 1.M BP42			
20 kVA	-	1 x 1.M BP84	1 x 1.M BP84	3 x 1.M BP65	2 x 1.M BP84	4 x 1.M BP65	5 x 1.M BP65
			1 x 1.M BP42		1 x 1.M BP42		
24 kVA	1 x 1.M BP84	2 x 1.M BP65	1 x 1.M BP84	2 x 1.M BP84	4 x 1.M BP65	5 x 1.M BP65	6 x 1.M BP65
			1 x 1.M BP42				

Further versions available upon request

Classification VFI SS 111 acc. to IEC 62040-3	Protect 1.040	Protect 1.M
	UPS Module	System cabinet (max. 6 x 4 kVA)
Power type rating	4 kVA	24 kVA
	2.8 kW	16.8 kW
	n+x technology	
Part number	600 000 3928	600 000 3930
UPS INPUT		
Input voltage (auto. detection)	230 VAC (1 ph~/N/PE) or 400 / 230 VAC (3 ph~/N/PE)	
Voltage range without battery mode	160 – 300 VAC (1 ph~) or 277 – 520 VAC (3 ph~)	
Frequency	50 Hz / 60 Hz ±4 Hz	
Current consumption (max.)	22 A (1 ph~) or 7.3 A (3 ph~)	132 A (1 ph~) or 44 A (3 ph~)
Power factor	λ ≥0.98	
UPS OUTPUT		
Rated output voltage (adjustable)	220 VAC / 230 VAC / 240 VAC ±2 %	
Frequency in battery mode	50 Hz / 60 Hz ±0.2 Hz	
Output current	17.4 A	104.4 A
Transfer time at mains outage	0 ms (without interruption)	
Voltage waveform	Sinusoidal, distortion THD <3 %	
Overload response (online mode)	125 % for 30 s / 130 % for 2 s, then automatic transfer to bypass mode: 0 ms (without interruption)	
Crest factor	3 : 1	
Short circuit response	Short circuit proof (3 x I_N for 100 ms)	
BATTERY		
Rated voltage (linked)	120 VDC	
Charging characteristics	IU – characteristic curve (charging voltage 137 VDC / charging current max. 3.5 A/ module)	
Autonomy time	Freely selectable and expandable with external battery modules (available modules with 28, 42 or 65 Ah) Service life: 10 – 12 years acc. to EUROBAT	
Overload/deep discharge protection	Yes	
COMMUNICATION		
Interfaces (dual monitoring)	RS232 / RS485 (with status display and data values) communication slot (for potential free contacts, SNMP)	
Shutdown software (on CD)	5 network licenses for all common OS (e.g. Windows, Linux, Mac, Unix, Sun etc.)	
Failure indicators (acoustic/visual)	Graphical LCD display with digital display of the input and output parameters (voltage, frequency, capacity etc.), battery parameters incl. password protected detailed failure diagnostics, LED display for status notification / central failure display	
GENERAL DATA		
Efficiency AC – AC (at nominal load)	>89 %	>88 %
Audible noise (1 m distance)	<55 dB (A)	<62 dB(A)
Operating temperature range	0° – 40 °C	
Humidity	20 % – 90 %	
Operation altitude	Up to 1000 m at nominal load	
EMC conformity	EN 62040-2 Class C3	
Product safety	EN 62040-1	
Mains input	Secured terminal block	
Consumer outputs	Secured terminal block	
Equipment color	Blackline	
Dimensions approx. W x H x D (mm) UPS	442 x 965 x 700 (chassis) / module each: 405 x 87 x 530	
Dimensions approx. W x H x D (mm) battery extension unit	442 x 965 x 700	
Weight approx. UPS	75 kg (chassis) + 15 kg per module	
Weight approx. battery cabinet	1.M BP28: 160 kg, 1.M BP42: 200 kg, 1.M BP56: 255 kg, 1.M BP65: 270 kg, 1.M BP84: 335 kg	
Shipment	Communications cable, UPS management- software “CompuWatch” (CD), operating instructions	
Conformity	CE	

REMOTE PANEL, DISTRIBUTION UNITS

EXTENSIONS AND ACCESSORIES



Remote Panel

Remote Panel remote monitoring unit for professional data center management

The remote signal table displays the UPS operating status in real time at a remote monitoring site.

In addition, a bar display informs about the current UPS capacity utilization and/or in the emergency power operating mode about the remaining available capacity.

An acoustic alarm, which can be deactivated, completes the optical display.

The remote monitoring unit can be installed at a distance of up to 500 m from the UPS being monitored.

Data transmission and voltage supply of the remote signal panel are ensured with a conventional patch cable.

The Remote Panel is available for Protect C, Protect D, Protect 1 and Protect 1.M

Part number

- Remote Panel: 600 000 5881

Distribution bars for professional data centers

The distribution bar enables you to distribute the UPS outputs among several loads. Different versions support the load connection via Schuko or non-heating sockets (IEC 320 C13 & C19).

Depending on the connection type, the ports are protected against overload – centrally or in pairs. This ensures an extremely effective fulfillment of selected criteria in accordance with specific shutdown conditions.

LEDs display the current operating status of the distribution bar. With the pluggable fastening brackets, the distribution bars are flexibly installed in default rack systems. The fastening brackets can be removed for on-table operation and therefore enable flexible use.

Thanks to the robust aluminum housing, the PDU distribution bars are torsion-resistant and extremely durable.

Part numbers

- IEC Distribution Bar: 600 000 9254
- PDU 10-1: 600 000 6829
- PDU 10-2: 600 000 6831
- PDU 16-1: 600 000 6830
- PDU 16-2: 600 000 6832



Sub-distributions

MANUAL BYPASS SWITCH, POWER DISTRIBUTION BOX



Manual Bypass Switch



Power Distribution Box

Manual Bypass Switch unit for maintenance works and tests

The external manual bypass switch for the series Protect A, B.PRO, C, D, 1 and 1.M is used to disconnect the UPS for maintenance works allowing uninterrupted, continuous feed of the connected loads.

Besides the sheer bypass operation, the manual bypass switch also enables a UPS test run. Non-heat device sockets in the output of the smaller devices enable direct feeding of the loads. Space for a separate, complete sub-distributor is provided by MBS 24000. The external manual bypass unit supports 3 operating modes:

1. UPS mode: the loads are fed through the UPS

2. Service mode: the loads are directly fed by the power supply system. A UPS test can be run at the same time.

3. Bypass operation: the loads are directly fed by the power supply system. The connected UPS is completely separated from the circuit and can be removed for maintenance and replacement works.

Part numbers

- MBS 2000: 600 000 3039
- MBS 3000: 600 000 3040
- MBS 6000: 600 000 5205
- MBS 10000: 600 000 7684
- MBS 24000: 100 000 2021

Power Distribution Box, parallel switch panel, manual bypass and distributor panel

The compact parallel switch panel enables the development of a parallel system without modifying the existing low voltage distribution system. Through the output distribution with up to 24 separately protected and pre-configured circuits, which can be partially integrated in the parallel switch panel, modification of the sub-distribution circuit is no longer required.

The panel enables parallel switching of the devices to increase power and/or to achieve redundancy. Each UPS device can be disconnected from the power supply system and also from the safe bar facing the output without interrupting the voltage supply of the loads.

With the integrated manual bypass switch, the complete UPS parallel system can be disconnected, e.g. for maintenance works. In this case, the loads are fed without interruption.

Part numbers

- PDB Protect C: 100 000 1852
- PDB Protect D: 600 001 2436
- PDB Protect 1: 100 000 1853

SNMP (PRO / MINI) CARD, ENVIRONMENT MANAGER



SNMP (PRO/mini) card



Environment Manager

SNMP (PRO/mini) card Network-based UPS management

SNMP adapters are communication extensions for the UPS series starting from Protect B. PRO. All versions support monitoring of UPS devices via the web.

If needed, a phased shutdown of all relevant servers in the network is possible. Via Wake-up-on-LAN, the servers can be re-activated. This enables an automated shutdown and reboot of the system. The UPS can also be configured and monitored by network management software with the integrated SNMP agent according to RFC1628.

The PRO and mini version of the SNMP adapter further enables the integration of features such as area access control, air condition or smoke and/or fire detectors. In addition, temperature and humidity can be measured and administered by means of optical sensors.

The SNMP PRO adapter enables, among other features, the connection of an intelligent load management distributor.

Part numbers

- SNMP adapter: 600 000 4036
- SNMP-PRO adapter: 600 000 1271
- SNMP-mini adapter: 600 000 8668
- Digital temperature sensor: 800 002 0878
- Digital combi sensor for temperature and humidity: 800 002 2493
- External relay board: 800 002 5994
- Load management distributor: 800 000 6684

Environment Manager Management unit for several environmental sensors

The Environment Manager is designed as a system extension for the SNMP-PRO and SNMP-mini adapter. It is a universally applicable device for the administration of sensors. A total of 8 analog sensor units, 4 digital inputs and 4 digital outputs can be managed.

Each type of sensor unit can be connected, e.g. for temperature, humidity, pressure, tank level, chemical concentration or similar features. The incoming signal voltages only need to be within the specified parameter range: 0 – 10 V for analog inputs, 30 V 500 mA for digital in- and outputs. The digital inputs can, under normal circumstances, be configured optionally as N/O or N/C contacts.

Part number

- Environment Manager: 800 002 2488

BUILDING MANAGEMENT, RELAY CARD



Building management



Relay card

Building management sensors for environmental data

With monitoring sensors for environmental data, you can upgrade the UPS management to a complete building management system for your data center. All devices are compact and equipped with a 5 m RJ12 connection cable.

Temperature sensor
Measurement range:
0 °C – +100 °C, ±1 %

Combi sensor
Measurement range:
temperature
0 °C – +100 °C, ±1 %
relative humidity
0 – 100 %, ±5 %

Motion sensor
Coverage:
14 m x 14 m, 90°

Smoke sensor
Smoke detector with photocell

Acoustic alarm
Signaling through Piezo buzzer, approx. 85 dB(A)

Optical alarm
Signaling through stroboscope light

Part numbers

- Temperature sensor: 800 002 2489
- Combi sensor for temperature and humidity: 800 002 2492
- Motion sensor: 800 002 2494
- Smoke sensor: 800 002 2495
- Piezo alarm: 600 000 7361
- Stroboscope alarm: 600 000 7362

Relay card Communication through potential-free contacts

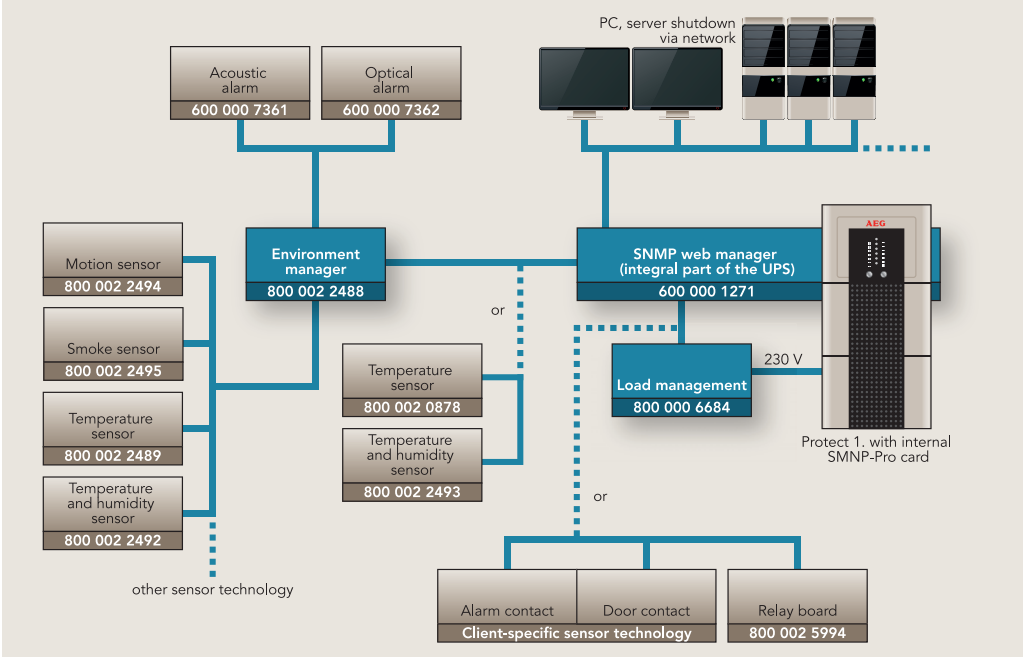
The relay card is an option for the UPS series starting from Protect B. PRO.

It provides potential-free contacts at the outputs, which can be configured optionally as N/O or N/C contacts and which can be used as binary input for the SPS or building control systems.

Tapping occurs via a sub-D-slot and, in case of the programmable PRO design, via a clamping block designed for supply voltage potential.

Part numbers

- Relay card mini: 600 000 9252
- Relay card standard: 600 000 3932
- Relay card PRO: 600 000 9253



COMPUWATCH





"CompuWatch" – shutdown and UPS management software

"CompuWatch" is based on the TCP/IP network protocol and can therefore be used in non-standard networks. "CompuWatch" allows you to shut down server and computer systems with diverse operating systems safely and automatically when needed.

Through the intelligent communication link between the UPS, the server and the existing network topology, information is forwarded by means of security mechanisms to all server and computer systems powered by the UPS. This is where the information is processed in the software modules. Phased shutdowns are possible if the software modules on the respective servers are configured accordingly.

All "CompuWatch" modules work as a service and/or backend process. Individual procedures can be launched through shellscript and/or batch programming.

With the "CompuWatch" client, a graphical front end for Microsoft Windows operating systems, you can monitor and control all UPS installations connected to the network. It is also possible to control the network using the scheduler.

AEG Power Solutions products provide you with a complete, one-stop-shop security solution for networks:

Main characteristics

- Software in client/ server technology
- Integration in the operating system as a back end process or service
- Supports RS232, USB and network interface in the UPS devices
- User-friendly, easy installation and configuration
- Multi-server-shutdown in standard and non-standard networks
- Programmable activities thanks to a scheduling mechanism
- Password-protected control functions
- User-friendly front end to monitor UPS devices, locally and through the network
- Selectable bar displays for measured values
- Automated shutdown of server and computer systems
- Supports the Wake-up-on-LAN function for sequential reboots
- Adaptable shutdown procedure through shell script and batch files
- Notification of events by network message, e-mail and text message
- Freely configurable event manager
- Logging of all UPS and computing events based on date and time
- Supports the most important operating systems on different platforms. The recent overview can be found on www.aegps.com



SOFTWARE
UNMS



"UNMS" – network management software for UPS devices

With the network management software for UPS devices "UNMS", you can easily monitor and control higher numbers of UPS systems in different networks.

The software gives the administrator an overview over all installed UPS systems and informs about the operating conditions at the individual sites. This enhances security and availability. Centralized administration of the installation is possible.

If there is a problem in one of the UPS units, the "UNMS" software informs the administrator, optionally and on request, by network message, e-mail or text message.

The administrator can immediately take appropriate counter-measures.

The network management software supports all common web browsers and gives administrators the necessary flexibility to manage larger networks. UPS status information, log history and reports can be viewed anywhere in the web browser.

Main characteristics

- Web-based remote monitoring of power supply systems in the network
- Easy administration of complex power supply infrastructures
- Notification about events by means of network messages, e-mails or text messages
- Logging of all events in a logbook
- Graphics for statistical evaluation
- Customer-specific adaptations with background graphics possible

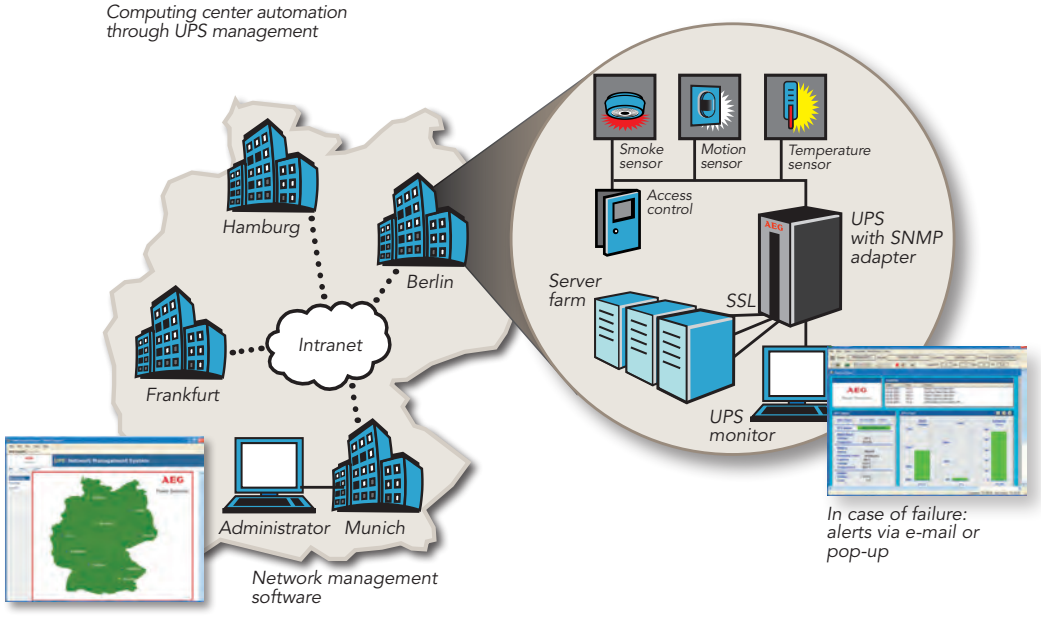
Complete solutions

With the "UNMS" software for remote administration in connection with "CompuWatch", you can create a standardized management system to run several data centers. The optional sensors enable you to also monitor environmental data and hence to create a comprehensive solution.

Main characteristics

- Environmental control with sensors, e.g. for temperature, humidity, smoke and motion detectors
- Secure communication between UPS and server through SSL encryption
- Local alarm through actuators such as alarm lights or acoustic signaling devices
- Alerts via network messages, e-mail or text messages
- Completely automated server management by means of programmable events

Computing center automation through UPS management



AEG POWER SOLUTIONS

YOUR POWER PARTNER – ALSO FOR SERVICES

Service for the compact UPS series

On the basis of our high standards and decades of experience, we also provide affordable, efficient and fast services.

During the first 24 months after the purchase of new equipment, we offer a nationwide replacement service in advance for devices and batteries of the compact UPS series (Protect Home / alpha / A / B. PRO / C / D / 1 / 1.M).

Additional service packages adapted to the users' needs are directly available at the UPS point of sale. They offer optimal cost control during a period of up to 60 months.

The following service packages are available:

Pro-Care Garant

In addition to the standard 24 month warranty, an extension to 36 months is available.

Please contact your AEG Power Solutions represantative if you are interested.



Pro-Care Garant PLUS

With Pro-Care Garant PLUS, the warranty is extended to 60 months starting from the date of purchase.

The option can be acquired within the first year after purchase of the equipment and includes up-front replacement of the UPS during the entire warranty period.

Pro-Care Garant PLUS is available for the series Protect C, Protect D, Protect 1 und Protect 1.M.



Pro-Care Start Commissioning

AEG Power Solutions provides you with a professional commissioning services to ensure that your system is ready for use.

Our experts commission your system in accordance with the relevant norms and conduct rigorous functional tests. Thanks to Pro-Care Start Commissioning, you will also benefit from comprehensive protection covered by the manufacturer's warranty.



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Contact details can be found on:

www.aegps.com

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